



GIS integration of the 1:2880 Stabile cadastre map sheets from Bukovina

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Starting with 1975, the North-West part of the Moldavia Principality was occupied by the Habsburg Monarchy and become known as Duchy of Bukovina. During the 143 years of Austrian rule (1775 - 1918), this territory was the subject of several topographic and cadastral surveys. The paper will focus on the cadastral maps produced under the Stabile cadaster (also known as Franciscan cadastre). In the Habsburg Empire, this cadastral survey was started in 1817, at an order of the Emperor Francis I of Austria, as a base for his land taxation reform. In Bukovina, the land registration system was introduced in 1832. The base maps, known as Katastralmappe or Parzellenplan, were drawn under the 1:2880 scale, using Viennese Klafter (fathom) as length unit (1 Viennese Klafter = 1.89648 meters). Each taxation parish (usually centered on the most important cities/villages) was surveyed and mapped individually. The map sheets were accompanied by several registers (e.g. register of building plots, register of land plots) with informations regarding the cadastral parcels.

Today, such documents represent a valuable resource in reconstructing the natural and built environment. The study presents the way this maps can be georeferenced and integrated into modern GIS applications, for precise digitization, spatial analysis and 3D reconstruction. The base of the georeference is the knowledge of the projection and datum parameters of the survey in Bukovina as well as the sheet labeling system.